What is claimed is:

1 1. A method of assigning identifying indicia to objects in multidimensional space

2 comprising the steps of:

3   sorting objects initially according to a first dimension of their location in multi-

4 dimensional space;

5   grouping subsets of objects according to ambiguities in the objects; and

6   ordering ambiguous objects in subsets according to other dimensions of the

7 multidimensional space.

2. The method according to claim 1 wherein said grouping step includes the step of:

    determining ambiguities among coordinate values of their location in the multi-

dimensional space according to whether separation of objects in a dimension is less than

a predetermined threshold value.

3. The method according to claim 2 wherein said determining step includes the step of

2   ascertaining a predetermined threshold value based on known errors of position

3 measurements.

1   4. The method according to claim 1 including an initial step of:

2   selecting as the first dimension of a multidimensional coordinate system that

3   dimension along which separation of objects exhibits the greatest dispersion.

1   5. The method according to claim 1 wherein said grouping steps includes the step of:

2   determining ambiguities among coordinate values according to whether separation of

3   targets is less than any of a plurality of predetermined threshold values.

1   6. The method according to claim 2 wherein said determining step includes the step of:

2   ascertaining a predetermined threshold value based on a maximum rate of change of

3   position of one target with respect to any other.

1   7. The method according to claim 5 wherein said determining step includes the steps of:

2   ascertaining one of said predetermined threshold values based on maximum rate of

3   change of position of one object with respect to any other; and

4   ascertaining another one of said predetermined threshold values based on the random

5   errors of measurements in positions of the objects.

1   8. A method of sorting indicia corresponding to objects moving through a

2   multidimensional space comprising the steps of:

3   scanning the multidimensional space to detect positions of objects therein;

4   assigning unique indicia to each detected object;

5   sorting assigned indicia along one coordinate axis of the multidimensional space;

6   grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis;

7   and

8   ordering indicia in subsets according to other coordinate axes of the

9   multidimensional space.